IN THE CLAIMS:

Please amend claims 13 and 23 and add new claim 24-26 as follows.

1.   (Previously Presented) An apparatus comprising:

a calculator coupled to receive indications of a selected communication indicia associated with communication characteristics of a communication channel during a selected interval, the apparatus being configured to transmit data upon the communication channel and to dynamically select at least a first switching threshold used in selection of a modulation parameter, said calculator being configured to select the at least the first switching threshold, the first switching threshold changeable responsive to changes in the selected communication indicia, and the first switching threshold selected by said calculator to at least satisfy a first performance criteria and to satisfy at least a second performance criteria.

2.   (Previously Presented) The apparatus of claim 1, wherein selection of the first switching threshold by said calculator maximizes the first performance criteria while also satisfying the at least the second performance criteria.

3.   (Previously Presented) The apparatus of claim 1, wherein the selected communication indicia to which said calculator is coupled to receive indications thereof

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comprises error indicia representative of errors introduced upon the data during communication upon the communication channel.

4.   (Previously Presented) The apparatus of claim 3, wherein the data comprises frame-formatted data and wherein the error indicia to which said calculator is coupled to receive comprises a frame error rate indication.

5.   (Previously Presented) The apparatus of claim 1, wherein the data transmitted by the first communication station is transmitted to a second communication station, wherein the second communication station is coupled in a feedback arrangement with the first communication to return to the first communication station a report representative of the communication characteristics of the communication channel, and wherein the selected communication indicia to which said calculator is coupled to receive is based upon the report returned to the first communication station.

6.   (Previously Presented) The apparatus of claim 5, wherein the data transmitted by the first communication station is formatted into a plurality of data frames which are successively transmitted upon the communication channel, the plurality including a previously-transmitted data frame and a subsequent data frame, the report returned to the first communication station subsequent to reception of the previously-transmitted frame and wherein the first switching threshold selected by said calculator is

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selected, and the modulation parameter selected therefrom is selected, prior to transmission of the subsequent data frame by the first communication station.

7.   (Previously Presented) The apparatus of claim 6, wherein the selected communication indicia to which said calculator is coupled to receive indications thereof comprises throughput indicia representative of a throughput rate at which the plurality of data frames are transmitted on the communication channel.

8.   (Previously Presented) The apparatus of claim 7, wherein the selected communication indicia to which said calculator is coupled to receive indications thereof further comprises a frame error rate indication, the throughput rate being negatively related to the frame error rate indication.

9.   (Previously Presented) The apparatus of claim 1, further comprising a modulation parameter selector coupled to said calculator, said modulation parameter selector for selecting the modulation parameter by which the data is operated upon by the first communication station prior to transmission upon the communication channel.

10.   (Previously Presented) The apparatus of claim 9, wherein the modulation parameter comprises a modulation-type by which the data is modulated by the first communication station.

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11.   (Previously Presented) The apparatus of claim 9, wherein the modulation parameter comprises an encoding rate by which the data is encoded by the first communication station.

12.   (Cancelled)

13.   (Currently amended) The apparatus of claim 1, wherein said calculator comprises a processor having an enhanced linear-reward-inaction learning algorithm executable thereat and in which the selected communication indicia form inputs to the linear-reward-inaction LRI algorithm.

14.   (Previously Presented) The processor of claim 21, wherein inputs formed of the selected communication indicia comprise teaching inputs to the linear-reward-inaction.

15.   (Previously Presented) The processor of claim 14, wherein the teaching inputs comprise an indication related to the first performance criteria and an indication related to the second performance criteria.

16.   (Previously Presented) A method comprising:

selecting at least a first switching threshold responsive to indications of a selected communication indicia associated with communication characteristics of a communication channel during a selected interval, the first switching threshold selected to at least satisfy a first performance criteria and to satisfy at least a second performance criteria;

selecting the modulation parameter by which the data is operated upon by the first communication station prior to transmission upon the communication channel;

changing the at least the first switching threshold responsive to changes in the indications of the selected communication indicia; and

selectably changing the modulation parameter responsive to changes in the at least the first switching threshold.

17.   (Previously Presented) The method of claim 16, comprising maximizing the first performance criteria while also satisfying the at least the second performance criteria, by the first switching threshold selected during said operation of selecting the at least the first switching threshold.

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18.   (Previously Presented) The method of claim 16, comprising:

performing selecting the at least the first switching threshold by executing an algorithm at a processor, wherein the first communication station comprises the processor.

19.   (Previously Presented) The method of claim 18, wherein the algorithm comprises a enhanced linear-reward-inaction learning algorithm in which the selected communication indicia form inputs to the linear-reward-inaction algorithm.

20.   (Previously Presented) The method of claim 19, wherein the inputs to the linear-reward-inaction algorithm comprise a first indication related to the first performance criteria and a second indication related to the second performance criteria.

21.   (Previously Presented) A processor embodied on a computer readable medium, the processor having a linear-reward-inaction learning algorithm executable thereat for:

receiving indications of a selected communication indicia associated with communication characteristics of a communication channel during a selected interval, the processor being in an apparatus for a first communication station being operable to transmit data upon the communication channel and to dynamically select at least a first switching threshold used in selection of a modulation parameter, and

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selecting the at least the first switching threshold, the first switching threshold selected by said linear-reward-inaction learning algorithm to at least satisfy a first performance criteria and to satisfy at least a second performance criteria.

22.   (Previously Presented) An apparatus comprising:

selecting means for selecting the at least a first switching threshold responsive to indications of a selected communication indicia associated with communication characteristics of a communication channel during a selected interval, the first switching threshold selected to at least satisfy a first performance criteria and to satisfy at least a second performance criteria; and

selecting means for selecting the modulation parameter by which the data is operated upon by the first communication station prior to transmission upon the communication channel;

changing means for changing the at least the first switching threshold responsive to changes in the indications of the selected communication indicia; and

means for selectably changing the modulation parameter responsive to changes in the at least the first switching threshold.

23.   (Currently Amended) An apparatus comprising:

a ~~selecting unit~~ first selector configured to select the at least a first switching threshold responsive to indications of a selected communication indicia associated with

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communication characteristics of a communication channel during a selected interval, the first switching threshold selected to at least satisfy a first performance criteria and to satisfy at least a second performance criteria; and

a ~~selecting unit~~ second selector configured to select the modulation parameter by which the data is operated upon by the first communication station prior to transmission upon the communication channel;

a ~~changing unit~~ first changer configured to change the at least the first switching threshold responsive to changes in the indications of the selected communication indicia; and

a ~~changing unit~~ second changer configured selectably changing the modulation parameter responsive to changes in the at least the first switching threshold.

24.   (New) An apparatus comprising:

a calculator coupled to receive indications of a selected communication indicia associated with communication characteristics of a communication channel during a selected interval, the apparatus being configured to transmit data upon the communication channel and to dynamically select at least a first switching threshold used in selection of a modulation parameter, said calculator being configured to select the at least the first switching threshold, the first switching threshold changeable responsive to changes in the selected communication indicia, and the first switching threshold selected

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by said calculator to at least satisfy a first performance criteria and to satisfy at least a second performance criteria,

wherein said calculator comprises a processor having an enhanced linear-reward-inaction learning algorithm executable thereat and in which the selected communication indicia form inputs to the linear-reward-inaction algorithm.

25.   (New) A method comprising:

selecting at least a first switching threshold responsive to indications of a selected communication indicia associated with communication characteristics of a communication channel during a selected interval, the first switching threshold selected to at least satisfy a first performance criteria and to satisfy at least a second performance criteria,

wherein the selecting the at least the first switching threshold comprises executing an algorithm at a processor, wherein the first communication station comprises the processor, wherein the algorithm comprises an enhanced linear-reward-inaction learning algorithm in which the selected communication indicia form inputs to the linear-reward-inaction algorithm;

selecting the modulation parameter by which the data is operated upon by the first communication station prior to transmission upon the communication channel;

changing the at least the first switching threshold responsive to changes in the indications of the selected communication indicia; and

selectably changing the modulation parameter responsive to changes in the at least the first switching threshold.

26.   (New) The method of claim 25, wherein the inputs to the linear-reward-inaction algorithm comprise a first indication related to the first performance criteria and a second indication related to the second performance criteria.

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